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EFFECTIVENESS OF COUNSELING AND GUIDANCE TECHNIQUES FOR ELEMENTARY SCHOOL STUDENTS. FINAL REPORT.

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This study investigated the effectiveness of Individual Counseling and a Parent Educational Program in modifying underachieving behavior and measured personality traits, peer relationships, and perceived family attitudes. The sample was comprised of fifth-grade students, male and female. The treatment duration was an academic year. The underachievers were identified by predicting their grade point average using a prediction equation. If a discrepancy was found between actual achievement and predicted level of achievement, the student was identified as an underachiever. The underachievers were grouped into two groups, individual counseling and parent treatment groups, on the basis of testing. These two groups were further subdivided by random sampling into a treatment group and control group. The change from pre- to post-testing on the variables of the study was analyzed by using the analysis of covariance. The overall finding of the study indicated that neither of the two treatment approaches resulted in any significantly measurable change. The few differences that were found were attributed to the chance factor. The overall conclusion was that the treatment conditions of individual counseling and parent education did not result in any significant improvement in achievement, measured personality traits, peer relations, and perceived parental attitudes. (Author)

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EFFECTIVENESS OF COUNSELING AND GUIDANCE TECHNIQUES FOR UNDERACHIEVING ELEMENTARY SCHOOL STUDENTS

Cooperative Research Project No. 5-0571-2-12-1

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INTRODUCTION

Underachievement, as an educational problem at the elementary level, has been receiving a considerable degree of attention during the last few years. Educators have recognized this problem as needing professional consideration at a much earlier age in the life of the student than previously given. This recognition, plus the growth of the developmental counseling approach (i.e., Blocker, 1966), has created a greater interest in working with these kinds of problems at the earliest possible stage of development, rather than waiting until the problem is full blown and the behavior pattern well established.

Although some research is reported on underachievement at the elementary level, the vast majority of data deals with this kind of behavior at the secondary school and college levels. However, Ohlsen (1964) discussed the problem of the gifted underachiever and suggested that the best way to cope with this behavior pattern is to prevent it. This would also seem to be a realistic approach for all levels of ability from gifted to slow learners, represented in our elementary school systems.

As the result of a minimum amount of emperical evidence available at the elementary school level, educators have not had adequate data from which to build a realistic and meaningful approach to underachievement that would be more preventative and developmental in its emphasis.

In this respect, a review of previous research in this area uncovers what appears to be several methodological problems which need to be considered at this point.

The majority of research on the treatment of underachievement contains what is a definite "logical" problem in terms of design. This weakness in design might be one explanation of the apparent ineffectiveness of treatments in modifying this kind of behavior. In many studies underachievers are randomly assigned to various treatment or remedial conditions. Little consideration has been given to the apparent or suspected causal or precipitating factors associated with the student's underachieving behavior. Because of random assignment it is quite possible that the treatment condition a student is assigned to is in no way related to the major contributing factors of his underachieving behavior. It seemed more realistic to give greater attention to the individual underachiever so that he might be placed in a more appropriate treatment group.

A second limitation of research dealing with the modification of underachieving behavior has been the short term counseling approach employed in many research projects. As suggested by Broedel, Ohlsen, Proff, and Southard (1960), it seemed important to make available to the client the possibility of a greater number of counseling sessions. In this study the number of sessions for the treatment groups extended over the full academic year.

A third limitation of previous research taken into consideration in this study was the lack of reported findings on the results of working with parents of underachievers. Writers in the area of guidance have alluded to the value and necessity of such an approach, and yet this technique has seldom been incorporated into research projects aimed at improving academic performance. Very little empirical evidence is available as to its effectiveness in changing the child's behavior pattern. Therefore, this study investigated the utilization of a parent-educational program as a means of changing underachieving behavior of students.

The final limitation of previous research is statistical in scope. Harris (1963) has edited a book dealing with the statistical problems involved in measuring change when using difference scores based on pre-post testing. The contributing authors point out the necessity of using the analysis of covariance when working with pre-post test scores. This technique corrects for pretreatment differences between groups and for differences resulting from the correlation between pre and post treatment scores on the criterion measures. Therefore, if significant differences are found, these differences may be attributed to a real treatment effect and not to pretreatment differences or differences due to the correlation between pre-post test scores. By taking these factors into account, it was possible to make more meaningful conclusions in terms of the effectiveness of the treatments. A review of the literature indicated that this technique has seldom been used when analyzing improved academic performance and associated factors. Therefore, this study utilized the analysis of covariance to test for significant differences between treatment and control groups on all criterion measures.

The two treatment conditions employed in this study were individual counseling sessions with student and working with parents through an educational program. Each treatment group had a control group of students identified as having similar behavior patterns or backgrounds.

The following research questions were answered in the study.

RESEARCH QUESTIONS

1. Is there a significant difference in measured personality change among treatment groups and combined control groups when analyzed by sex?
2. Is there a significant difference in change in peer relationships among treatment groups and combined control groups when analyzed by sex?
3. Is there a significant difference in change in perceived parental attitudes among treatment groups and combined control groups when analyzed by sex?
4. Is there a significant difference in change in achievement among treatment groups and combined control groups when analyzed by sex?
5. Is there a signficant difference in measured personality change between counseling treatment and control groups when analyzed by sex?
6. Is there a significant difference in change in peer relation-

ships between counseling treatment and control groups when analyzed by sex?

7. Is there a significant difference in change in perceived parental attitudes between counseling treatment and control groups when analyzed by sex?
8. Is there a significant difference in change in achievement between counseling treatment and control groups when analyzed by sex?
9. Is there a significant difference in measured personality change between parent treatment and control groups when analyzed by sex?
10. Is there a significant difference in change in peer relationships between parental treatment and control groups when analyzed by sex?
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17. Is there a significant difference in measured personality change between female treatment and control groups when analyzed by ability?

18. Is there a significant difference in change in peer relationships between female treatment and control groups when analyzed by ability?

19. Is there a significant difference in change in perceived parental attitudes between female treatment and control groups when analyzed by ability?

20. Is there a significant difference in change in achievement between female treatment and control groups when analyzed by ability?

21. Is there a significant difference in measured personality change among male treatment groups and control groups when analyzed by parental occupational level?

22. Is there a significant difference in change in peer relationships among male treatment groups and control groups when analyzed by parental occupational level?

23. Is there a significant difference in change in perceived parental attitudes among male treatment groups and control

groups when analyzed by parental occupational level?

24. Is there a significant difference in change in achievement among male treatment groups and control groups when analyzed by parental occupational level?

25. Is there a significant difference in measured personality change between female treatment and control groups when analyzed by parental occupational level?

26. Is there a significant difference in change in peer relationships between female treatment and control groups when analyzed by parental occupational level?

27. Is there a signficant difference in change in perceived parental attitudes between female treatment and control groups when analyzed by parental occupational level?

28. Is there a significant difference in change in achievement between female treatment and control groups when analyzed by parental occupational level?

CHAPTER II

Review of Literature

Although a great deal has been written on the underachiever in terms of identifying factors related to this behavior pattern, and evaluating the effectiveness of program to modify the behavior, very little of this data deals with the elementary school child. With research in underachievement, as is the case with much educational and psychological research, the results are often contradictory or inconclusive. Part of this difficulty might be traced to the problem of comparing the results of studies done with students of different age levels. One cannot assume that a finding on bright high school underachievers applies equally as well to underachieving elementary school students of all ability levels. Rather, it seems necessary to begin building a body of knowledge that will be more specific in terms of the population being referred to. Therefore, a specific body of knowledge about the elementary school underachievers is needed. For these reasons, only those studies which relate specifically to elementary school underachievers were included in this review.

Descriptive Studies

Several research studies have dealt with the identification of traits, characteristics, attitudes, experiences, backgrounds, etc., that might be related to underachievement.

Teigland, Winkler, Munger, and Kranzler (1966) found that fourth grade underachievers scored lower or towards poorer adjustment on all fifteen scales of the California Test of Personality when compared to achievers. They also found that underachievers appeared to have greater difficulty in relating to and being accepted by their peer group. They concluded that there appeared to be a definite relationship between personality traits, peer acceptance and underachievement.

Norman, Clark, and Bessemer (1962) studied a group of gifted achievers and underachievers at the sixth grade level. They found a consistency of performance more typical of the achiever while there was greater "scatter" or variability in the achievement of the underachievers. They hypothesized that the differences between the two groups could be explained in terms of a better school adjustment of the achiever.

Shaw and McCuen (1960) studied a group of bright underachievers in terms of the onset of this behavior pattern. They found that the male underachiever receives lower grades than does his counterpart, from the first grade on, and that these differences become significant at the third grade level. The results for the female group were somewhat difference in that the underachiever received higher grades than the achiever for the first five years. However, at grade six, the underachiever dropped sharply in their achievement and the difference between the two groups became significant at grade nine.

Raph, Goldberg, and Passow (1966) report an investigation by Leibman who studied fifth graders using the Winnetka Scale for Rating School Behavior and Attitudes and three personality measures. The author concluded that children who rated better in personal and social adjustment had a more adequate achievement record.

Kurtz and Swenson (1951) studied the problem of underachievement at the elementary and junior high school level. On the basis of data from reports, ratings, and observations, they concluded that underachievers appeared to be less happy, showed signs of greater instability, and revealed more intense feelings of inferiority than did achievers.

Granzow (1954) found that underachievers had greater difficulty adjusting to school rules. He also found that these underachievers had fewer friends than achievers and overachievers. This latter finding was in agreement with the findings of Teigland, et al (1966) and Kurtz & Swenson (1951).

Serious consideration is presently being given the home environment and atmosphere of the underachiever. Chance (1961) found a relationship between level of achievement and maternal attitudes towards early independence training. She found that children whose mothers favored earlier independence training had greater difficulty in achieving in reading and arithmetic than did a group of children of equal ability whose mothers favored later independence training. The author hypothesized that an attempt to maintain psychological distance between mother and child might be operating for the first group.

In summary, research generally supports the notion that when compared to the achiever elementary school underachiever has greater personal adjustment problems, more home environment problems, greater difficulty in relating to peers, and poorer attitudes towards school.

Treatment Studies

Very little research has been reported which deals with the evaluation of the effectiveness of techniques used to increase the underachievers performance.

Winkler, Teigland, Munger, and Kranzler (1966) studied the effectiveness of four kinds of treatment. They employed individual counseling, group counseling, a reading skill treatment, and a Hawthorne or "attention" group. The results of the experiment indicated that none of the treatments resulted in significant improvement in achievement, changes in measured personality variables, or improvement in peer relationships. The authors suggested that the minimal number of counseling sessions might have contributed to the ineffectiveness of the treatments.

Chansky (1963) reported the results of a study utilizing perceptual training and a remedial reading program independently and in combination as treatments. Chansky concluded that although no significant differences were found, that perceptual training appeared to have promise as an approach to modifying underachieving behavior. He raised alternate hypotheses regarding the rationale for such training. First, it introduces and reinforces sensory motor skills and secondly, it reinforces motivation for learning.

Karnes, McCoy, Zehrbach, Wollersheim, and Clarizio (1963) reported a study based on the efficacy of two organizational plans for dealing with underachievement. The subjects were all gifted elementary school students. One group of these underachievers was placed in a homogeneous class of gifted children. The second group was placed in a heterogeneous class with students from a wide range of ability. The hypothesis of the study was that the underachievers in the homogeneous classroom would increase their achievement level, would be more creative, and would perceive themselves as being better accepted by their peers and parents. It was found that the homogeneous grouped underachievers increased their achievement and perceived parent attitudes significantly when compared to the control group. The authors concluded that it appeared desirable to place these kinds of students in homogeneous classes with high achievers.

The three studies reported represent three different approaches to working with elementary school underachievers. They study by Winkler, et al, approached underachievement from basically a personal adjustment model using more traditional therapeutic techniques. Chansky's study might be classified as a learning theory or behavioral model approach with some consideration given to motivation. Karnes, et al, tend to emphasize a group situation in which motivational theory played a significant role.

In terms of the results reported from these studies, the latter approach seemed to hold the greatest effectiveness in modifying underachievement.

CHAPTER III

Procedure

The major objective of this investigation was to determine the effectiveness of individual counseling and a parent educational program as techniques in modifying underachieving behavior of fifth grade students. Changes in peer relationships, measured personality variables, and perceived parent relationships of the participants were also investigated. In order to accomplish these goals the following procedures were employed.

Sample

The subjects employed in this study consisted of all students who were fourth graders during the school year 1965-1966 and fifth graders during the school year 1966-1967 in the greater Grand Forks, North Dakota, public school system.

Fourteen elementary schools participated in the research project.

Identification of Underachievers

The underachievers were identified during their fourth grade school year.

All subjects were administered the California Test of Mental Maturity (CTMM) during the first month of the school year, 1965-1966.

The classroom grades for the students were recorded for the first two six-week grading periods for seven academic subjects (reading, language, literature, spelling, arithmetic, social studies, and science). These letter grades were transformed into numerical values (A=4, B=3, C=2, D=1, F=0) and the average GPA for each six-week period was calculated. The mean of these two scores was then computed for each subject which resulted in the mean GPA for the two grading periods.

For each separate classroom, a product-moment correlation was computed between the subjects IQ score and mean GPA. Using the correlation coefficient, a regression equation was computed for each subject to predict his GPA (GPA') on the basis of his IQ score (Thorndike, 1963). If the GPA' was greater than .75 standard error of the estimate above the mean GPA, the subject was identified as an underachiever. This resulted in the identification of 156 underachievers. Of these 156 students, 112 were male and 42 were female. However, several of these students moved during the two years leaving a total of 92 males and 34 females as participants in the study.

Instruments

During the first month of the fourth grade, all students were administered the California Test of Personality (CTP), the Iowa Test of Basic Skills (ITBS), a Sociometric Test (ST) (Appendix A), and a Perceived Parent Attitude Survey (PPAS) (Appendix B). At the close of the fifth grade year the CTP, ST, and the PPAS were readministered. The ITBS was administered during the regular testing program of the school year 1967-1968. In addition, the classroom grades for the seven academic subjects were collected for the last three grading periods. From this data the mean GPA was computed for that time period. and served as the basis for the final estimate of achievement.

Assignment to Treatment Group

The subjects identified as underachievers were previously administered the CTP and PPAS. The raw scores from these two tests were transformed to z scores for comparison purposes. This transformation allowed for a comparison of the two scores for each underachiever individually. The z scores were ranked and the score of the instrument with the lowest ranking was considered representative of the most important contributing factor of underachieving behavior for that individual. This procedure was used to assign the subjects to either the individual counseling treatment group or the parent treatment group.

From this procedure two treatment groups were determined. These two groups were then subdivided into male and female groups. From these four groups one-half of the subjects were randomly selected for each specific treatment group. The other one-half was placed in the control group. This resulted in a male counseling treatment group and control group, a male parent treatment group and control group, a female counseling treatment group and control group, and a female parent treatment group and control group.

Definition of Treatments

Individual counseling was defined as a one-to-one relationship. The emphasis of the relationship was personal counseling due to the relatively low scores on the personality measure. However, each counselor was allowed to progress with each student in a way that he felt most realistic and meaningful. The counselor was free to use play therapy or other therapeutic techniques felt to be appropriate to the client's situation. The average number of counseling sessions per student was 22-23 interviews. The counselors made the observation that the sessions appeared to become less productive about half-way through the project. Therefore, no counseling sessions were held for one week to give the students a break in the schedule. It was the counselors' opinion that this appeared to help the relationship considerably and they were able to continue the sessions on a more productive level. Several students missed sessions because of not being in school. With some of these students, it was impossible to make up the sessions.

The parent contact program was designed to stimulate the interest of parents in their child's school experiences and to provide a better understanding of what some of the more typical problems of the child were. It was not designed to be a therapeutic program for the parents. Seven structured contacts were made with the parents. The foci of these contacts were an understanding of child development, intellectual curiosity and the classroom, discipline, childhood responsibility, sibling rivalry, parental reactions to the program, and a final evaluation. Because the literature reports the home environment of the underachiever as often being supportive of achievement, it was felt that an increase in interest and understanding could create more positive attitudes in the home resulting in improvement in the several areas of investigation of this project.

Statistical Analysis

To test for significant differences among and between treatment and control groups, the analysis of covariance was employed. The analysis was programmed at the University of North Dakota Computer Center. When a significant F ratio was found, *t* tests were computed on the adjusted means within the specific analyses. Only those mean comparisons which had a logical relationship were made.

The .01 level of significance was accepted as the level that would indicate a significant analysis. The .01 level was selected because of the large number of F tests run. By setting a lower level of significance one runs the risk of talking about differences which can be attributed to chance. To reduce this possibility a higher level of significance was set.

Counselors

The counselors employed in the study were all doctoral students in counseling and guidance. All had previously had experience in counseling. The clients were assigned randomly to the counselors. The counselors also had the responsibility of contacting the parents.

Organization of Analyses

To identify the high and low ability groups, each treatment group for male underachievers and each control group was ranked on the basis of the CTMM. The groups were divided in half, resulting in the high and low ability groups. The same procedure was followed for the female treatment and control groups.

To identify the high and low occupational groups, the occupational status of the family was taken from the cumulative file of the student. These occupations were given a ranking on the basis of the Employment Service Occupational Classification System. Each treatment group and each control group was ranked from high to low. The upper fifty percent comprised the high occupational level group; and the lower fifty percent, the low occupational level group.

Limitations

There are several limiting factors which need to be discussed and which in turn will give the reader a better understanding of the total study.

Although the total number of underachievers identified is adequate, the majority of these students were males. This appears to be typical of most underachieving groups, based on the findings of other researchers. Therefore, in any analysis where the female group was analyzed separately, there tended to be an extremely small N. For this reason the treatment groups (Individual Counseling and Parent Treatment groups) were combined for the analysis. Although this is a definite weakness, it appeared to be the only method of handling this problem.

A second problem encountered which was related to the first problem discussed was the loss of project participants because the family moved out of the community during the study. This was especially true of the two schools located at the Grand Forks Air Force Base. This movement resulted in a decrease in the original number of students who were identified as underachievers during the initial phase of the study. Therefore, the N of the analyses is less than the original number of underachievers.

A third problem encountered resulted in the limiting of the treatment groups. It was originally planned to have a reading improvement group comprised of students who appeared to be underachieving because of reading difficulties. This had to be abandoned because of the introduction of a reading program for all fifth graders in the Grand Forks School System. Therefore, this treatment condition was eliminated from the study.

CHAPTER IV

Results and Discussion

The results section is organized by restating each research question with reference to the appropriate tables. The tables containing the results of the analysis of covariance and *t* comparisons are included in the report after the Appendices.

Research Question One: Is there a significant difference in measured personality change among treatment groups and combined control groups when analyzed by sex?

Tables 1 through 15 contain the results of the analyses of the CTP variables. Although several of the F ratios approached significance, none were found to be significant. It was, therefore, concluded that the treatment conditions had no overall effect on improving personality adjustment of the underachievers.

Research Question Two: Is there a significant difference in change in peer relationships among treatment groups and combined control groups when analyzed by sex?

Tables 16 through 18 contain the results of the analyses on the sociometric variables, work with, sit by, and play with. From the tables it may be seen that the results were non-significant. It was, therefore, concluded that the treatment conditions did not result in any measured change in peer relationships for the underachievers.

Research Question Three: Is there a significant difference in change in perceived parental attitudes among treatment groups and combined control groups when analyzed by sex?

Table 19 contains the results of the analysis on the perceived parent attitude questionnaire. From the non-significant results, it was concluded that the treatment conditions did not result in any measurable change on this instrument.

Research Question Four: Is there a significant difference in change in achievement among treatment groups and combined control groups when analyzed by sex?

Tables 20 through 24 contain the results on the analyses of achievement data. Again, several of the analyses approached the required significance level. However, none reached the .01 level, and it was concluded that the treatment groups did not increase their achievement level when compared to the control groups.

Research Question Five: Is there a significant difference in measured personality change between counseling treatment and control groups when analyzed by sex?

Tables 25 through 39 contain the results of the analyses regarding comparisons between the counseling treatment groups and related control groups. On the basis of the results found in these tables, it was concluded that the counseling treatment groups for both males and females did not result in a measured personality adjustment change when compared to their respective control groups.

Research Question Six: Is there a significant difference in change in peer relationships between counseling treatment and control groups when analyzed by sex?

Tables 40 through 42 contain the results of these analyses. No significant F ratios were found; and, therefore, the research question was answered in the negative.

Research Question Seven: Is there a significant difference in change in perceived parental attitudes between counseling treatment and control groups when analyzed by sex?

Table 43 contains the results of this analysis. The F ratio was non-significant; and, therefore, the research question was answered in the negative.

Research Question Eight: Is there a significant difference in change in achievement between counseling treatment and control groups when analyzed by sex?

Table 44 indicates that there was no significant increase in achievement for the male and female counseled groups.

Research Question Nine: Is there a significant difference in measured personality change between parent treatment and control groups when analyzed by sex?

Tables 45 through 59 contain the results of the analyses of change in personality traits. There was one significant F ratio. The row (sex) F ratio was significant at the .01 level on the CTP variable, Sense of Personal Freedom. To identify the source of the significance t tests were computed on the adjusted means between male and female treatment groups and between male and female control groups. Table 147 contains the results of these comparisons. The difference was between the two control groups which demonstrated that the significant F ratio that was due to chance. Therefore, the research question was answered in the negative.

Research Question Ten: Is there a significant difference in change in peer relationships between parent treatment and control groups when analyzed by sex?

The results of Tables 60-62 contain the results of these analyses. Because no significant F ratios were found, it was concluded that there were no changes in peer relationships for the treatment group versus the control group.

Research Question Eleven: Is there a significant difference in change in perceived parental attitudes between parent treatment and control groups when analyzed by sex?

The results of the analysis regarding perceived parental attitude change for the parent treatment groups are found in Table 63. The results were non-significant and, therefore, it was concluded that the parent treatment group was not effective in producing changes in the home atmosphere that resulted in a change in the student's perception of the parents' attitudes.

Research Question Twelve: Is there a significant difference in change in achievement between parent treatment and control groups when analyzed by sex?

Table 64 contains the results of the analysis of improvement in achievement. From the results, it was concluded that the parent treatment group did not improve in academic achievement.

Research Question Thirteen: Is there a significant difference in measured personality change among male treatment groups and combined control groups when analyzed by ability?

Tables 65 through 79 contain the results of these analyses. Because no significant differences were found, it was concluded that the male treatment groups did not change in personality adjustment when compared with the control groups, with ability taken into account.

Research Question Fourteen: Is there a significant difference in change in peer relationships among male treatment groups and combined control groups when analyzed by ability?

Tables 80 through 82 contain the results of these analyses. Again, it was concluded that the male treatment groups did not change significantly when compared to the control groups, with ability taken into account.

Research Question Fifteen: Is there a significant difference in change in perceived parental attitudes among male treatment groups and combined control groups when analyzed by ability?

Table 83 gives the results of the analysis of the perceived parent attitude questionnaire for the male groups. From the results of the analysis, it was concluded that the treatment groups did not change significantly, with ability level taken into account.

Research Question Sixteen: Is there a significant difference in change in achievement among male treatment groups and combined control groups when analyzed by ability?

Table 84 indicated that there was a significant row (ability) effect. The F ratio was significant at the .001 level. To identify the source of the significance, t tests were run between high ability and low ability counseling treatment, between high ability and low ability control groups. It was found that the adjusted mean of the high ability group was significantly higher than the low ability group adjusted mean for the counseling treatment group. Table 148 presents the results of these comparisons.

Research Question Seventeen: Is there a significant difference in measured personality change between female treatment and control groups when analyzed by ability?

Tables 85 through 99 present the results of the analyses of the CTP variables. The data presented indicates that neither high nor low ability treatment groups improved in personal adjustment when compared to the control groups. Therefore, the research question was answered in the negative.

Research Question Eighteen: Is there a significant difference in change in peer relationships between female treatment and control groups when analyzed by ability?

Tables 100 through 102 present the results of the sociometric data analyses. It was found that the treatment groups did not improve in peer relationships when compared to the control groups.

Research Question Nineteen: Is there a significant difference in change in personal parental attitudes between female treatment and control groups when analyzed by ability?

Table 103 presents the data which indicates that regardless of ability level the treatment groups did not profit the female underachievers.

Research Question Twenty: Is there a significant difference in change in achievement between female treatment and control groups when analyzed by ability?

Table 104 presents the results of this analysis. From the data it was concluded that the treatment groups did not affect any change in achievement level for underachieving girls, regardless of ability level.

Research Question Twenty-One: Is there a significant difference in measured personality change among male treatment groups and control groups when analyzed by parental occupational level?

The results presented in Tables 105 through 119 indicate that no significant differences were found between high and low occupational levels and measured personality change of the male treatment and control groups.

Research Question Twenty-Two: Is there a significant difference in change in peer relationships among male treatment groups and control groups when analyzed by parental occupational level?

The results for these analyses are presented in Tables 120 through 122. No significant differences were found between the treatment and control groups when analyzed according to occupational level of the family.

Research Question Twenty-Three: Is there a significant difference in change in perceived parental attitudes among male treatment groups and control groups when analyzed by parental occupational level?

The results of Table 123 indicate that there was no significant change in perceived parental attitudes for the male treatment groups when compared to the control groups with parental occupational level taken into account.

Research Question Twenty-Four: Is there a significant difference in change in achievement among male treatment groups and control groups when analyzed by parental occupational level?

Table 124 indicates that there was no significant improvement in achievement for the male treatment groups when compared to the control groups with parental occupational level taken into account.

Research Question Twenty-Five: Is there a significant difference in measured personality change between female treatment and control groups when analyzed by parental occupational level?

The results in Tables 125 through 139 present the results for the high and low occupation groups. Of the fifteen variables of the CTP used in the analyses, two were found to be significant. One of these was significant because of differences in the control group. In the other analysis the row (occupation level) F was significant. Table 146 presents the t comparisons between the occupational levels within the treatment and within the control group. The results of these analyses showed that the high occupational treatment group adjusted mean was greater than the low occupational treatment group adjusted mean.

Research Question Twenty-Six: Is there a significant difference in change in peer relationships between female treatment and control groups when analyzed by parental occupational level?

Tables 140 through 142 present the results of these analyses. All F ratios were non-significant and it was, therefore, concluded that the treatment group did not change in peer relationships when compared to the control group, regardless of occupational level of the parent.

Research Question Twenty-Seven: Is there a significant difference in change in perceived parental attitudes between female treatment and control groups when analyzed by parental occupational level?

Table 143 presents the result of this analysis. Based on the data the research question was answered in the negative.

Research Question Twenty-Eight: Is there a significant difference in change in achievement between female treatment and control groups when analyzed by parental occupational level?

Table 144 reveals that the treatments were ineffective in producing changes in achievement when occupational level was taken into account.

In summary, 144 analyses of covariance were computed. It was possible for each analyses to have a significant row effect (sex, ability, and occupational level), a significant column effect (treatment groups) and a significant interaction effect. Only four of these analyses resulted in significant findings and these findings were all significant row effects.

Discussion

It was disappointing to have almost complete lack of significant findings in this study. There was no apparent effectiveness of the treatment groups in modifying underachieving behavior or related factors such as peer relationships, home attitudes as perceived by the underachievers, or personality adjustment in several areas.

In examining the results it may be seen that by setting the level of significance at the .05 level several more of the F ratios would have been significant. This would not have strengthened the findings, however, in that the number of significant F ratios would have approximated five percent of the total number of F tests run and, therefore, could have been explained on the basis of chance.

It was also interesting to note that in the computer print out several of the F ratios were significant before the covariant adjustment was made. This would seem to further substantiate the need to use the analysis of covariance in this type of research.

In looking at the four variables that were significant, three were personality traits or adjustment areas and one was an achievement variable. The difference in two of these analyses was found to exist within the control group when comparing male and female control subjects and high and low occupational rating levels.

High ability was the important factor in the analysis in which there was significant gain in the counseling treatment group as compared to the parallel low ability group. The high ability group improved significantly over the low ability group on GPA. Although this was a very isolated finding it might suggest that the brighter male student will profit more from individual counseling in terms of improvement in achievement.

The occupational level was the important factor in the other significant analysis. It was found that the female treatment groups (combined) of the high occupational rating underachievers had a significantly higher adjusted mean change on Sense of Personal Freedom than did the low occupational rating underachievers. This could reflect more their station in life than the effect of a treatment condition designed to improve their academic performance.

There are several reasons which need to be mentioned which could be meaningful and which probably should be considered in further research in the area of modification of underachieving behavior.

First, one should probably look at the treatment conditions utilized in this study as well as many studies similar to it. These students are seen on a weekly basis by a counselor who has very little contact with them in other situations. They return to the class and the home where the environment remains relatively consistent and probably somewhat unmotivating. It is possible that the treatment condition needs to involve the teacher rather than the pupil. It might be hypothesized that by increasing the teacher's awareness of an individual student's needs the chances of his improving his academic performance in the class will be increased.

A second type of treatment condition could be intensive work with the parents, one that is basically therapeutic rather than educational. It could be that educators and counselors have expectations that are too high for an underachiever who is still in grade school and who has all of the other pressures related to his underachieving behavior impinging upon him. What is being suggested is that the underachiever does not have the control over his experiences that an adult has and, therefore, regardless of the intensity of the therapeutic and educational experience provided for him by the counselor, still cannot cope with these other forces. An example of this type of pressure would be the peer pressure that the student experiences, which encourages him not to achieve. Further, it does not necessarily need to be assumed that this pressure is being exerted by other underachievers, or at least by "identified" underachievers, but rather by students who might be categorized as "good" students.

Another major consideration in this kind of research is the criterion measures employed to identify changes. Even the validity of the most "sophisticated" psychological test might be questioned as an instrument to measure change. It is one thing to obtain a gross estimate or measure of the achievement or personality of an individual from an appropriate psychological test. It would appear to be another matter to try and measure change in achievement or personality structure and expect these instruments to pick up or measure these changes. What is being suggested is that the kinds of changes that occur as a result of counseling or some other therapeutic experience are not adequately being tapped by our present-day measurement capabilities. These researchers are not willing to accept the fact that counseling with the underachievers did not produce any positive changes with at least some of the students. The same could be said for the parent treatment group. However, statistically this fact cannot be shown.

This observation was reinforced by the comments of many of the school personnel and several parents of children being counseled. The principals of the elementary schools were especially supportive of the approach taken by the counselors.

The counselors also reported that they felt that the counseling interviews were effective with many of the underachievers.

Therefore, although statistically the effects of the treatment conditions were not significant, it was felt that there was progress with many of the participants.

C[illegible] V

Summary

Underachievement in the elementary schools has become a concern of education and guidance personnel. Research has shown that underachievement begins developing during the early grades and persists as a pattern of behavior in the development of many pupils. Research has also demonstrated that there are a variety of related concomitants to the pattern of underachievement. Such things as personality traits, peer relationships, home environment, sex, etc., have been found to be related to underachievement.

Very little data is available regarding the modification of this behavior at the elementary school level. The purpose of this study was to investigate the effectiveness of two treatment conditions: a year-long counseling program based on weekly contacts with the underachieving student and, a parent education program that was intended to acquaint the parent with the kinds of experiences and pressures that contribute to achievement or the lack of it. The latter approach was not a therapeutic experience for the parents of underachievers, but rather educational and informative.

In attempting to determine whether underachieving behavior and related concomitants could be modified the following research questions were asked.

Research Questions

1. Is there a significant difference in measured personality change among treatment groups and combined control groups when analyzed by sex?
2. Is there a signficant difference in change in peer relationships among treatment groups and combined control groups when analyzed by sex?
3. Is there a significant difference in change in perceived parental attitudes among treatment groups and combined control groups when analyzed by sex?
4. Is there a significant difference in change in achievement among treatment groups and combined control groups when analyzed by sex?
5. Is there a significant difference in measured personality change between counseling treatment and control groups when analyzed by sex?
6. Is there a significant difference in change in peer relationships between counseling treatment and control groups when analyzed by sex?
7. Is there a significant difference in change in perceived parental attitudes between counseling treatment and control groups when analyzed by sex?
8. Is there a significant difference in change in achievement between counseling treatment and control groups when analyzed by sex?
9. Is there a significant difference in measured personality

change between parent treatment and control groups when analyzed by sex?

10. Is there a signficant difference in change in peer relationships between parent treatment and control groups when analyzed by sex?

11. Is there a significant difference in change in perceived parental attitudes between parent treatment and control groups when analyzed by sex?

12. Is there a significant difference in change in achievement between parent treatment and control groups when analyzed by sex?

13. Is there a significant difference in measured personality change among male treatment groups and combined control groups when analyzed by ability?

14. Is there a significant difference in change in peer relationships among male treatment groups and combined control groups when analyzed by ability?

15. Is there a significant difference in change in perceived parental attitudes among male treatment groups and combined control groups when analyzed by ability?

16. Is there a significant difference in change in achievement among male treatment groups and combined control groups when analyzed by ability?

17. Is there a significant difference in measured personality change between female treatment and control groups when analyzed by ability?

18. Is there a significant difference in change in peer relationships between female treatment and control groups when analyzed by ability?

19. Is there a significant difference in change in perceived parental attitudes between female treatment and control groups when analyzed by ability?

20. Is there a significant difference in change in achievement between female treatment and control groups when analyzed by ability?

21. Is there a significant difference in measured personality change among male treatment groups and control groups when analyzed by parental occupational level?

22. Is there a significant difference in change in peer relationships among male treatment groups and control groups when analyzed by parental occupational level?

23. Is there a significant difference in change in perceived parental attitudes among male treatment groups and control groups when analyzed by parental occupational level?

24. Is there a significant difference in change in achievement among male treatment groups and control groups when analyzed by parental occupational level?

25. Is there a significant difference in measured personality change between female treatment and control groups when analyzed by parental occupational level?

26. Is there a significant difference in change in peer relationships between female treatment and control groups when

analyzed by parental occupational level?

27. Is there a significant difference in change in perceived parental attitudes between female treatment and control groups when analyzed by parental occupational level?
28. Is there a significant difference in change in achievement between female treatment and control groups when analyzed by parental occupational level?

Procedure

Sample

The subjects employed in this study were all the fourth grade students in the Grand Forks Public School System during the year 1965-1966. From this group the underachievers were identified and served as the treatment and control groups during the school year 1966-1967.

Identification of Underachievers

All subjects were administered the California Test of Mental Maturity during the first month of their fourth grade year. The classroom grades for reading, language, literature, spelling, arithmetic, social studies, and science were collected. A grade point average was determined for each student based on the first two six-weeks' grading periods. Using a prediction equation, the expected GPA was predicted. If the discrepancy was greater than .75 standard error of estimate with the predicted GPA highest, the student was identified as an underachiever. This resulted in 156 underachievers being identified. At the termination of the study, 126 underachievers remained in the study. Of these 126, 92 were males and 34 were females.

During the first school month of the fourth grade all students were administered the California Test of Personality, Iowa Test of Basic Skills, Sociometric Test, and a Perceived Parent Attitude Questionnaire. At the close of the fifth grade year the CTP, ST, and PPAS were readministered. The ITBS was readministered during the regular testing program the following fall. In addition the final GPA was computed for all underachievers at the close of the fifth grade year.

Assignment to Treatment Groups

Based on the CTP and the PPAS the underachievers were assigned to either a counseling treatment group or a parent treatment group. These two groups were randomly divided for the actual treatment group with the other one-half serving as the control group. This was done separately for each sex.

Analyses

The analysis of covariance was employed to determine whether significant changes had occured because of participation in the treatment groups. If a significant F ratio was found, *t* tests were computed on the adjusted means to determine where the significant differences were within the analysis.

Results

The results proved to be almost totally non-significant, There were only four significant F ratios. To determine where the significant changes were, _t_ tests were computed. In two of the analyses the changes had occurred within the control group. Of the two analyses that were significant, it was found that when divided in terms of occupational status, the female treatment group for the high status group changed more than the low status group on the CTP variable, Sense of Personal Freedom. The second significant analysis indicated that when divided into high and low ability groups, the high ability male group was significantly higher on change in GPA than was the low ability male group within the counseling treatment.

However, it must be concluded that the total research analyses indicated that the treatment conditions did not affect any significant change in modifying underachieving behavior or related factors.

Recommendations

Based on the non-significant results of this study the following recommendations were made.

1. Give greater attention to the kinds of treatment approaches used, with specific attention given to working with the teachers and parents.
2. Be very selective in the types of measuring instruments used, with special attention given to the relationships of the instrument and expected outcome of the treatment conditions.

3. Begin looking at different types of outcomes, some of which may be difficult to define and even more difficult to measure.
4. Continue the use of the analysis of covariance as the means of statistical analysis.

Although statistically the results of the study suggested that no significant changes were accomplished through use of the treatment conditions, it was felt that the program was well received in the schools by the staff. This suggests at least minimal success of the program.

APPENDIX A

Sociometric Test

NAME ____________________

For each question write the names of three (3) students in this classroom with whom you would like to do the following things. You may also choose students who are absent from school today. No one else will see your answers.

I would like to sit by these students in school.

1. ______________________________
2. ______________________________
3. ______________________________

I would like to do my school homework with these students.

1. ______________________________
2. ______________________________
3. ______________________________

I would like to be in a school play with these students.

1. ______________________________
2. ______________________________
3. ______________________________

APPENDIX B

Perceived Parent Attitude Questionnaire

NAME ______________________

SCHOOL ______________________

.GRADE ______________________

PLEASE CIRCLE YOUR ANSWERS.

1. My folks often ask me about what I am doing in school. YES NO
2. I think my parents are interested in my school work. NO YES
3. I would rather watch TV than read a book about different countries. YES NO
4. My parents hardly ever attend PTA. NO YES
5. At home I enjoy talking about things I am doing in school. YES NO
6. My parents are always interested in my report card. NO YES
7. Sometimes when I don't want to go to school my parents let me stay home. YES NO
8. Once in awhile I pretend I'm sick so I won't have to go to school. NO YES
9. I like to bring my schoolwork home and show my folks. YES NO
10. I have a desk or special place to study at home. NO YES
11. I like to do well in school to please my parents. YES NO
12. My parents try to help me with my schoolwork. NO YES
13. My folks like me to go to the public library. YES NO
14. When I have done something wrong in school I usually tell my parents about it. NO YES
15. My parents like to visit the school I attend. YES NO

16. During the summer I get my weekly reader NO YES

17. My parents try to get me books about things I study in school. YES NO

18. I often stay up late at night to watch TV. NO YES

19. I like to read a book and ask my parents questions about things I don't understand. YES NO

20. My friends like to read the same kinds of books as I do. NO YES

Table 1

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Sex	8.345	1	8.345	2.846
Treatment	21.827	2	10.913	3.722
Interaction	25.271	2	12.635	4.309
Error	372.383	127	2.932	
Total	427.826	132		

Table 2

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Sex	.664	1	.664	.066
Treatment	30.908	2	15.454	1.525
Interaction	17.491	2	8.745	.863
Error	1297.027	127	10.133	
Total	1346.090	132		

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Interaction	17.491	2	8.745	.863
Error	1297.027	127	10.133	
Total	1346.090	132		

Table 3

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Sex	22.301	1	22.301	5.085
Treatment	18.076	2	9.038	2.061
Interaction	21.675	2	10.837	2.471
Error	557.020	127	4.386	
Total	619.071	132		

Table 4

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Sex	1.751	1	1.751	.272
Treatment	1.299	2	.649	.101
Interaction	5.539	2	2.769	.430
Error	817.084	127		
Total	825.674	132		

Table 5

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Sex	7.786	1	7.786	.135
Treatment	2.563	2	1.281	.222
Interaction	.789	2	.395	.068
Error	732.026	127		
Total	736.157	132		

Table 6

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Sex	.770	1	.770	.128
Treatment	3.394	2	1.697	.281
Interaction	8.793	2	4.396	.728
Error	766.625	127		
Total	779.582	132		

Table 7

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Sex	32.569	1	32.569	.222
Treatment	747.053	2	373.527	2.547
Interaction	547.226	2	273.613	1.865
Error	18773.470	127		
Total	20100.320	132		

Table 8

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS	F
Sex	2.350	1	2.350	.726
Treatment	.850	2	.425	.131
Interaction	7.550	2	3.775	1.165
Error	411.370	127	3.239	
Total	422.121	132		

Table 9

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Sex	1.280	1	1.280	.294
Treatment	.939	2	.469	.108
Interaction	8.628	2	4.314	.992
Error	552.276	127	4.349	
Total	563.124	132		

Table 10

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Sex	14.326	1	14.326	2.769
Treatment	24.020	2	12.010	2.322
Interaction	.138	2	.069	.013
Error	656.948	127	5.173	
Total	695.432	132		

Table 11

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Sex	.610	1	.610	.116
Treatment	4.390	2	2.195	.416
Interaction	21.065	2	10.532	1.997
Error	669.881	127	5.275	
Total	695.946	132		

Table 12

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SCHOOL RELATIONS

Source	SS	df	MS	F
Sex	1.356	1	1.356	.228
Treatment	1.404	2	.702	.118
Interaction	36.367	2	18.813	3.063
Error	753.841	127	5.936	
Total	792.968	132		

Table 13

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - OCCUPATION RELATIONS

Source	SS	df	MS	F
Sex	1.984	1	1.984	.335
Treatment	3.656	2	1.829	.307
Interaction	9.644	2	4.822	.814
Error	752.449	127	5.925	
Total	767.734	132		

Table 14

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Sex	4.879	1	4.879	.061
Treatment	27.243	2	13.621	.171
Interaction	46.408	2	23.204	.291
Error	10128.590	127	79.753	
Total	10207.120	132		

Table 15

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Sex	35.549	1	35.549	.124
Treatment	555.984	2	277.992	.973
Interaction	452.379	2	226.189	.792
Error	36256.840	127	285.487	
Total	37300.750	132		

Table 16

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Sex	2.910	1	2.910	1.330
Treatment	4.831	2	2.415	1.104
Interaction	4.897	2	2.448	1.119
Error	277.954	127	2.189	
Total	290.593	132		

Table 17

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Sex	.090	1	.090	.036
Treatment	1.262	2	.631	.251
Interaction	1.658	2	.829	.330
Error	318.991	127	2.512	
Total	322.001	132		

Table 18

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Sex	2.150	1	2.150	.987
Treatment	1.426	2	.713	.327
Interaction	3.045	2	1.522	.699
Error	276.572	127	2.178	
Total	283.193	132		

Table 19

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON VARIABLE PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Sex	7.972	1	7.972	.654
Treatment	10.917	2	5.459	.448
Interaction	1.552	2	.776	.064
Error	1547.423	127	12.184	
Total	1567.865	132		

Table 20

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON VARIABLE GPA

Source	SS	df	MS	F
Sex	10.639	1	10.639	.223
Treatment	22.375	2	11.187	.234
Interaction	50.716	2	25.358	.531
Error	6059.172	127	47.710	
Total	6142.902	132		

Table 21

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON ITBS VARIABLE - LANGUAGE

Source	SS	df	MS	F
Sex	367.134	1	367.134	2.693
Treatment	1057.003	2	528.001	3.871
Interaction	301.711	2	150.855	1.102
Error	12141.005	84	136.410	
Total	13866.853	89		

Table 22

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON ITBS VARIABLE - WORK STUDY SKILLS

Source	SS	df	MS	F
Sex	158.969	1	158.969	1.172
Treatment	547.269	2	273.635	2.017
Interaction	996.125	2	498.063	3.671
Error	11397.400	84	135.683	
Total	13099.760	89		

Table 23

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON ITBS VARIABLE - COMPOSITE

Source	SS	df	MS	F
Sex	41.348	1	41.348	.380
Treatment	99.132	2	49.566	.456
Interaction	467.280	2	233.640	2.148
Error	10876.310	100	108.763	
Total	11484.070	105		

Table 24

ANALYSES OF COVARIANCE FOR TREATMENT BY SEX ON ITBS VARIABLE - ARITHMETIC

Source	SS	df	MS	F
Sex	26.144	1	26.144	.309
Treatment	66.541	2	33.271	.394
Interaction	67.383	2	33.691	3.988
Error	8448.987	100	84.489	
Total	9215.500	105		

Table 25

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Sex	.196	1	.196	.056
Counseling Treatment	10.549	1	10.549	3.035
Interaction	.410	1	.410	.118
Error	205.066	59	3.475	
Total	216.221	62		

Table 26

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Sex	2.572	1	2.572	.000
Counseling Treatment	.102	1	.102	.013
Interaction	.348	1	.348	.045
Error	454.654	59	7.706	
Total	455.107	62		

Table 27

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Sex	6.686	1	6.686	.000
Counseling Treatment	2.753	1	2.753	.614
Interaction	.031	1	.031	.007
Error	264.443	59	4.482	
Total	267.227	62		

Table 28

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Sex	3.186	1	3.186	.395
Counseling Treatment	9.300	1	9.300	1.153
Interaction	4.045	1	4.045	.502
Error	475.653	59	8.062	
Total	492.185	62		

Table 29

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Sex	.253	1	.253	.042
Counseling Treatment	.616	1	.616	.102
Interaction	4.561	1	4.561	.757
Error	355.607	59	6.027	
Total	361.038	62		

Table 30

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Sex	1.470	1	1.470	.206
Counseling Treatment	.061	1	.061	.009
Interaction	.148	1	.148	.208
Error	420.437	59	7.126	
Total	422.116	62		

Table 31

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Sex	6.624	1	6.624	.064
Counseling Treatment	3.141	1	3.141	.030
Interaction	13.924	1	13.924	.134
Error	6140.412	59	104.075	
Total	6164.102	62		

Table 32

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS	F
Sex	3.409	1	3.409	.748
Counseling Treatment	1.413	1	1.413	.311
Interaction	9.113	1	9.113	.200
Error	268.757	59	4.555	
Total	282.692	62		

Table 33

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Sex	4.707	1	4.707	.882
Counseling Treatment	.365	1	.365	.068
Interaction	5.777	1	5.777	1.083
Error	314.726	59	5.334	
Total	325.576	62		

Table 34

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Sex	9.416	1	9.416	1.708
Counseling Treatment	1.379	1	1.379	.250
Interaction	.005	1	.005	.000
Error	325.213	59	5.512	
Total	336.013	62		

Table 35

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Sex	15.257	1	15.257	3.055
Counseling Treatment	4.827	1	4.827	.967
Interaction	3.531	1	3.531	.071
Error	294.617	59	4.993	
Total	315.054	62		

Table 36

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - OCCUPATION RELATIONS

Source	SS	df	MS	F
Sex	20.076	1	20.076	3.387
Counseling Treatment	9.437	1	9.437	1.592
Interaction	8.851	1	8.851	1.493
Error	349.653	59	5.926	
Total	388.016	62		

Table 37

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - COMMUNITY RELATIONS

Source	SS	df	MS	F
Sex	.246	1	.246	.039
Counseling Treatment	2.337	1	2.337	.382
Interaction	1.125	1	1.125	.184
Error	360.702	59	6.113	
Total	364.406	62		

Table 38

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Sex	65.212	1	65.212	.765
Counseling Treatment	44.447	1	44.447	.522
Interaction	3.948	1	3.948	.046
Error	5027.502	59	85.212	
Total	5141.129	62		

Table 39

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Sex	35.927	1	35.927	.114
Counseling Treatment	1.386	1	1.386	.004
Interaction	3.171	1	3.171	.010
Error	18632.390	59	315.803	
Total	18672.870	62		

Table 40

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Sex	.145	1	.145	.061
Counseling Treatment	2.136	1	2.136	.898
Interaction	.680	1	.680	.286
Error	140.334	59	2.379	
Total	143.295	62		

Table 41

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Sex	.061	1	.061	.033
Counseling Treatment	1.524	1	1.524	.838
Interaction	2.587	1	2.587	1.422
Error	107.323	59	1.819	
Total	111.495	62		

Table 42

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Sex	9.010	1	9.010	.375
Counseling Treatment	.023	1	.023	.009
Interaction	.010	1	.010	.004
Error	141.573	59	2.399	
Total	142.507	62		

Table 43

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON VARIABLE PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Sex	2.571	1	2.571	.216
Counseling Treatment	17.897	1	17.897	1.502
Interaction	.143	1	.143	.012
Error	703.016	59	11.915	
Total	723.627	62		

Table 44

ANALYSES OF COVARIANCE FOR COUNSELING TREATMENT AND CONTROL BY SEX ON VARIABLE GPA

Source	SS	df	MS	F
Sex	16.283	1	16.283	.254
Counseling Treatment	11.487	1	11.487	.179
Interaction	10.798	1	10.798	.169
Error	3777.330	59	64.023	
Total	3815.898	62		

Table 45

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Sex	9.235	1	9.235	3.595
Treatment	16.953	1	16.953	6.599
Interaction	18.120	1	18.120	7.053
Error	166.996	65	2.569	
Total	211.306	68		

Table 46

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Sex	1.323	1	1.323	.194
Treatment	19.086	1	19.086	2.780
Interaction	15.693	1	15.693	2.302
Error	443.147	65	6.818	
Total	479.249	68		

Table 47

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Sex	34.792	1	34.792	8.422*
Treatment	22.468	1	22.468	5.439
Interaction	5.108	1	5.108	1.236
Error	268.527	65	4.131	
Total	330.894	68		

Table 48

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Sex	.489	1	.489	.110
Treatment	1.064	1	1.064	.239
Interaction	2.795	1	2.795	.628
Error	289.077	65	4.447	
Total	293.425	68		

Table 49

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Sex	2.407	1	2.407	.445
Treatment	8.259	1	8.259	1.525
Interaction	3.479	1	3.479	.642
Error	351.981	65	5.415	
Total	366.127	68		

Table 50

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Sex	2.131	1	2.131	.423
Treatment	8.010	1	8.010	1.607
Interaction	12.288	1	12.288	2.439
Error	327.505	65	5.039	
Total	350.024	68		

Table 51

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Sex	36.312	1	36.312	.400
Treatment	342.161	1	342.161	3.772
Interaction	330.639	1	330.639	3.645
Error	5895.719	65	90.703	
Total	6604.831	68		

Table 52

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS	F
Sex	.000	1	.000	.000
Treatment	.225	1	.225	.105
Interaction	.424	1	.424	.198
Error	138.973	65	2.138	
Total	139.624	68		

Table 53

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Sex	.458	1	.458	.131
Treatment	1.525	1	1.525	.435
Interaction	.352	1	.352	.100
Error	227.928	65	3.507	
Total	230.262	68		

Table 54

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Sex	9.853	1	9.853	2.012
Treatment	.442	1	.442	.090
Interaction	1.527	1	1.527	.003
Error	318.235	65	4.896	
Total	328.545	68		

Table 55

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Sex	5.867	1	5.867	.119
Treatment	16.675	1	16.675	3.390
Interaction	13.513	1	13.513	2.747
Error	319.692	65	4.918	
Total	350.467	68		

Table 56

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SCHOOL RELATIONS

Source	SS	df	MS	F
Sex	3.339	1	3.339	.560
Treatment	1.793	1	1.793	.301
Interaction	7.489	1	7.489	1.256
Error	387.578	65	5.963	
Total	400.200	68		

Table 57

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - COMMUNITY RELATIONS

Source	SS	df	MS	F
Sex	3.701	1	3.701	.649
Treatment	10.833	1	10.833	1.899
Interaction	6.543	1	6.543	1.147
Error	370.849	65	5.705	
Total	391.925	68		

Table 58

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Sex	.030	1	.030	.000
Treatment	73.502	1	73.502	1.061
Interaction	32.440	1	32.440	.468
Error	4503.311	65	69.282	
Total	460.928	68		

Table 59

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Sex	60.512	1	60.512	.266
Treatment	721.168	1	721.168	3.167
Interaction	311.441	1	311.441	1.367
Error	14802.510	65	227.731	
Total	15895.630	68		

Table 60

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Sex	3.970	1	3.970	1.930
Treatment	2.920	1	2.920	1.420
Interaction	1.980	1	1.980	.963
Error	133.708	65	2.057	
Total	142.579	68		

Table 61

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Sex	.418	1	.418	.133
Treatment	.281	1	.281	.090
Interaction	.714	1	.714	.228
Error	203.496	65	3.131	
Total	204.910	68		

Table 62

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Sex	.483	1	.483	.240
Treatment	2.121	1	2.121	1.052
Interaction	3.943	1	3.943	1.955
Error	131.103	65	2.017	
Total	137.651	68		

Table 63

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Sex	7.949	1	7.949	.619
Treatment	1.341	1	1.341	.105
Interaction	.022	1	.022	.002
Error	833.973	65	12.830	
Total	843.286			

Table 64

ANALYSES OF COVARIANCE FOR PARENT TREATMENT AND CONTROL BY SEX ON VARIABLE GPA

Source	SS	df	MS	F
Sex	31.010	1	31.010	1.051
Treatment	29.588	1	29.588	1.003
Interaction	13.232	1	13.232	.449
Error	1917.415	65	29.499	
Total	1991.245	68		

Table 65

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Ability	.328	1	.328	.110
Treatment	7.290	2	3.645	1.227
Interaction	12.034	2	6.017	2.025
Error	258.561	87	2.972	
Total	278.214	92		

Table 66

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Ability	5.078	1	5.078	.007
Treatment	5.406	2	2.703	.375
Interaction	10.350	2	5.175	.718
Error	627.145	87	7.209	
Total	642.951	92		

Table 67

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Ability	4.920	1	4.920	1.032
Treatment	18.126	2	9.063	1.902
Interaction	10.056	2	5.028	1.055
Error	414.615	87	4.766	
Total	447.718	92		

Table 68

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Ability	6.171	1	6.171	1.048
Treatment	17.260	2	8.630	1.466
Interaction	12.315	2	6.158	1.046
Error	512.201	87	5.887	
Total	547.948	92		

Table 69

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Ability	9.735	1	9.735	1.757
Treatment	3.320	2	1.660	.299
Interaction	7.912	2	3.956	.714
Error	481.873	87	5.539	
Total	502.841	92		

Table 70

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Ability	.322	1	.322	.054
Treatment	1.781	2	.890	.148
Interaction	1.110	2	.555	.092
Error	522.020	87	6.000	
Total	525.233	92		

Table 71

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Ability	40.994	1	40.994	.413
Treatment	299.384	2	149.692	1.508
Interaction	34.311	2	17.155	.173
Error	8633.365	87	99.234	
Total	9008.054	92		

Table 72

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS	F
Ability	10.921	1	10.921	2.747
Treatment	20.126	2	10.063	2.531
Interaction	2.279	2	1.139	.287
Error	345.863	87	3.975	
Total	379.189	92		

Table 73

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Ability	22.958	1	22.958	5.538
Treatment	11.117	2	5.558	1.341
Interaction	.243	2	.122	.029
Error	360.658	87	4.145	
Total	394.976	92		

Table 74

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Ability	.638	1	.638	.117
Treatment	21.619	2	10.809	1.987
Interaction	4.595	2	2.298	.422
Error	473.301	87	5.440	
Total	500.154	92		

Table 75

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Ability	2.276	1	2.276	.382
Treatment	10.262	2	5.131	.862
Interaction	1.349	2	.674	.113
Error	518.101	87	5.955	
Total	531.988	92		

Table 76

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SCHOOL RELATIONS

Source	SS	df	MS	F
Ability	11.157	1	11.157	1.745
Treatment	18.512	2	9.256	1.448
Interaction	1.516	2	.758	.118
Error	556.112	87	6.392	
Total	587.296	92		

Table 77

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - COMMUNITY RELATIONS

Source	SS	df	MS	F
Ability	28.584	1	28.584	5.208
Treatment	.830	2	.415	.076
Interaction	21.346	2	10.673	.194
Error	477.465	87	5.488	
Total	528.225	92		

Table 78

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Ability	219.121	1	219.121	2.512
Treatment	31.625	2	15.812	.181
Interaction	117.096	2	58.548	.671
Error	7588.015	87	87.219	
Total	7955.856	92		

Table 79

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Ability	336.306	1	336.306	1.132
Treatment	724.981	2	362.490	1.220
Interaction	272.786	2	136.393	.459
Error	25839.580	87	297.007	
Total	27173.660	92		

Table 80

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Ability	6.706	1	6.706	2.761
Treatment	99.572	2	49.786	2.050
Interaction	15.238	2	7.619	3.138
Error	211.258	87	2.428	
Total	243.159	92		

Table 81

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Ability	.283	1	.283	.089
Treatment	5.642	2	2.821	.895
Interaction	1.933	2	.966	.307
Error	274.193	87	3.152	
Total	282.052	92		

Table 82

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Ability	8.613	1	8.613	3.770
Treatment	10.345	2	5.172	2.264
Interaction	15.728	2	7.864	3.443
Error	198.732	87	2.284	
Total	233.418	92		

Table 83

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON VARIABLE PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Ability	18.683	1	18.683	1.537
Treatment	4.431	2	2.215	.182
Interaction	7.612	2	3.806	.313
Error	1057.612	87	12.156	
Total	1088.338	92		

Table 84

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY ABILITY ON VARIABLE GPA

Source	SS	df	MS	F
Ability	822.042	1	822.043	16.691**
Treatment	11.234	2	5.617	.114
Interaction	390.199	2	195.099	3.961
Error	4284.781	87	49.250	
Total	5508.256	92		

**Significant at the .001 level

Table 85

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Ability	1.665	1	1.665	.590
Treatment	7.207	1	7.207	2.555
Interaction	1.572	1	1.572	.557
Error	87.457	31	2.821	
Total	97.901	34		

Table 86

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Ability	8.682	1	8.682	1.084
Treatment	4.349	1	4.349	.543
Interaction	1.165	1	1.165	1.456
Error	248.161	31	8.005	
Total	272.848	34		

Table 87

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Ability	2.514	1	2.514	.764
Treatment	6.197	1	6.197	1.882
Interaction	7.246	1	7.246	2.201
Error	102.042	31	3.292	
Total	117.999	34		

Table 88

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Ability	3.852	1	3.852	.454
Treatment	.690	1	.690	.081
Interaction	4.671	1	4.671	.550
Error	263.070	31	8.486	
Total	272.282	34		

Table 89

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Ability	7.442	1	7.442	1.358
Treatment	2.714	1	2.714	.495
Interaction	22.836	1	22.836	4.167
Error	169.854	31	5.479	
Total	282.847	34		

Table 90

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Ability	.032	1	.032	.006
Treatment	10.131	1	10.131	1.867
Interaction	34.789	1	34.789	6.412
Error	168.191	31	5.425	
Total	213.143	34		

Table 91

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Ability	23.625	1	23.625	.236
Treatment	116.773	1	116.773	1.167
Interaction	169.724	1	169.724	1.696
Error	3101.663	31	100.053	
Total	3411.785	34		

Table 92

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS	F
Ability	4.761	1	4.761	3.413
Treatment	7.911	1	7.911	.567
Interaction	1.012	1	1.012	.073
Error	43.240	31	1.395	
Total	48.894	34		

Table 93

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Ability	.296	1	.296	.074
Treatment	3.422	1	3.422	.862
Interaction	.664	1	.664	.167
Error	123.111	31	123.111	
Total	127.492	34	127.492	

Table 94

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Ability	23.351	1	23.351	6.022
Treatment	2.061	1	2.061	.532
Interaction	.523	1	.523	.135
Error	120.202	31	3.877	
Total	146.138	34		

Table 95

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Ability	9.278	1	9.278	2.413
Treatment	.402	1	.402	.105
Interaction	.030	1	.030	.008
Error	119.194	31	3.845	
Total	128.904	34		

Table 96

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SCHOOL RELATIONS

Source	SS	df	MS	F
Ability	4.583	1	4.583	.964
Treatment	8.039	1	8.039	1.691
Interaction	3.967	1	3.967	.083
Error	147.345	31	4.753	
Total	160.363	34		

Table 97

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - COMMUNITY RELATIONS

Source	SS	df	MS	F
Ability	22.900	1	22.900	3.578
Treatment	.738	1	.738	.115
Interaction	7.742	1	7.742	1.210
Error	198.423	31	6.401	
Total	229.805	34		

Table 98

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Ability	255.718	1	255.718	4.704
Treatment	1.555	1	1.555	.029
Interaction	10.711	1	10.711	.197
Error	1685.250	31	54.363	
Total	1953.235	34		

Table 99

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Ability	290.468	1	290.468	1.193
Treatment	311.320	1	311.320	1.279
Interaction	202.772	1	202.772	.833
Error	7548.460	31	243.499	
Total	8353.020	34		

Table 100

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Ability	.032	1	.032	.023
Treatment	4.173	1	4.173	2.969
Interaction	.035	1	.035	.025
Error	43.579	31	1.406	
Total	47.820	34		

Table 101

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Ability	1.704	1	1.704	1.317
Treatment	.111	1	.111	.086
Interaction	.059	1	.059	.046
Error	40.127	31	1.294	
Total	42.002	34		

Table 102

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Ability	1.109	1	1.109	.881
Treatment	1.597	1	1.597	.127
Interaction	7.419	1	7.419	5.893
Error	39.029	31	1.259	
Total	47.717	34		

Table 103

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON VARIABLE PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Ability	2.211	1	2.211	.171
Treatment	4.620	1	4.620	.357
Interaction	16.181	1	16.181	1.249
Error	401.443	31	12.950	
Total	424.456	34		

Table 104

ANALYSES OF COVARIANCE FOR FEMALE COUNSELING TREATMENT AND CONTROL BY ABILITY ON VARIABLE GPA

Source	SS	df	MS	F
Ability	29.614	1	29.614	1.437
Treatment	.547	1	.547	.027
Interaction	10.898	1	10.898	.529
Error	638.749	31	20.605	
Total	679.808	34		

Table 105

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATIONAL LEVEL ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Level	.218	1	.218	.065
Treatment	7.109	2	3.555	1.055
Interaction	3.369	2	1.684	.500
Error	266.085	80	3.368	
Total	276.715	85		

Table 106

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATIONAL LEVEL ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Level	2.455	1	2.455	.328
Treatment	9.323	2	4.661	.623
Interaction	1.416	2	.708	.094
Error	598.954	80	7.487	
Total	612.149	85		

Table 107

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Level	1.564	1	1.564	.297
Treatment	25.479	2	12.739	2.416
Interaction	1.519	2	.759	.144
Error	421.892	80	5.274	
Total	450.456	85		

Table 108

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Level	4.755	1	4.755	.945
Treatment	28.170	2	14.085	2.799
Interaction	19.001	2	9.500	1.888
Error	397.424	80	5.031	
Total	449.351	85		

Table 109

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Level	19.112	1	19.111	4.931
Treatment	13.836	2	6.918	1.784
Interaction	3.638	2	1.819	.469
Error	310.086	80	3.876	
Total	346.671	85		

Table 110

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Level	1.171	1	1.171	.214
Treatment	7.329	2	3.665	.668
Interaction	31.815	2	15.908	2.901
Error	438.629	80	5.483	
Total	478.946	85		

Table 111

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Level	.287	1	.287	.003
Treatment	823.377	2	411.689	4.938
Interaction	224.403	2	112.201	1.346
Error	6669.798	80	83.372	
Total	7717.865	85		

Table 112

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS-	F
Level	4.693	1	4.693	1.083
Treatment	14.050	2	7.025	1.622
Interaction	5.958	2	2.979	.688
Error	346.489	80	4.331	
Total	371.191	85		

Table 113

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Level	6.525	1	6.525	1.406
Treatment	6.170	2	3.085	.665
Interaction	17.699	2	8.849	1.907
Error	371.216	80	4.640	
Total	401.611	85		

Table 114

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Level	.299	1	.299	.038
Treatment	10.817	2	5.409	.679
Interaction	1.302	2	.651	.081
Error	645.154	80	7.965	
Total	657.573	85		

Table 115

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Level	6.332	1	6.332	1.126
Treatment	11.732	2	5.866	1.043
Interaction	9.098	2	4.549	.809
Error	449.820	80	5.623	
Total	476.982	85		

Table 116

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - SCHOOL RELATIONS

Source	SS	df	MS	F
Level	.002	1	.002	.000
Treatment	31.494	2	15.747	2.506
Interaction	3.026	2	1.513	.241
Error	502.600	80	6.282	
Total	537.121	85		

Table 117

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - COMMUNITY RELATIONS

Source	SS	df	MS	F
Level	4.811	1	4.811	.916
Treatment	17.844	2	8.922	1.699
Interaction	2.884	2	1.442	.275
Error	414.754	80	5.250	
Total	440.295	85		

Table 118

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Level	122.569	1	122.569	1.283
Treatment	304.442	2	152.221	1.593
Interaction	42.747	2	21.374	.224
Error	7643.240	80	95.540	
Total	8112.998	85		

Table 119

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Level	98.572	1	98.572	.339
Treatment	1950.549	2	975.275	3.359
Interaction	324.720	2	162.360	.559
Error	22938.820	80	290.365	
Total	25312.660	85		

Table 120

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Level	3.365	1	3.365	1.229
Treatment	5.643	2	2.822	1.031
Interaction	5.819	2	2.909	1.063
Error	221.706	80	2.737	
Total	236.534	85		

Table 121

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Level	9.590	1	9.590	3.718
Treatment	4.913	2	2.456	.950
Interaction	2.535	2	1.267	.490
Error	206.757	80	2.584	
Total	223.795	85		

Table 122

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Level	2.800	1	2.800	1.089
Treatment	8.913	2	4.457	1.734
Interaction	9.947	2	4.974	1.935
Error	205.586	80	2.569	
Total	227.248	85		

Table 123

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON VARIABLE PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Level	27.393	1	27.393	2.731
Treatment	22.001	2	11.000	1.097
Interaction	27.311	2	13.655	1.361
Error	782.426	80	9.700	
Total	859.131	85		

Table 124

ANALYSES OF COVARIANCE FOR MALE TREATMENT AND CONTROL GROUPS BY OCCUPATION LEVEL ON VARIABLE GPA

Source	SS	df	MS	F
Level	137.988	1	137.988	5.794
Treatment	193.237	2	96.619	4.057
Interaction	133.000	2	66.500	2.792
Error	1952.706	80	238.135	
Total	241.693	85		

Table 125

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - SELF RELIANCE

Source	SS	df	MS	F
Level	1.222	1	1.222	4.949
Treatment	7.046	1	7.046	2.853
Interaction	3.127	1	3.127	1.266
Error	71.617	29	2.469	
Total	94.012	32		

Table 126

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Source	SS	df	MS	F
Level	3.107	1	3.107	.434
Treatment	16.025	1	16.025	2.241
Interaction	2.263	1	2.263	.316
Error	207.357	29	7.150	
Total	228.752	32		

Table 127

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Source	SS	df	MS	F
Level	33.673	1	33.673	12.177*
Treatment	13.069	1	13.069	4.726
Interaction	1.093	1	1.093	.039
Error	80.195	29	2.765	
Total	127.046	32		

*Significant at the .01 level

Table 128

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - FEELING OF BELONGING

Source	SS	df	MS	F
Level	25.207	1	25.207	4.040
Treatment	2.873	1	2.873	.461
Interaction	16.514	1	16.514	2.647
Error	180.939	29	6.239	
Total	225.534	32		

Table 129

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - FREEDOM FROM WITHDRAWING TENDENCIES

Source	SS	df	MS	F
Level	9.986	1	9.986	1.418
Treatment	19.700	1	19.700	2.797
Interaction	28.051	1	28.051	.398
Error	197.237	29	7.044	
Total	229.728	32		

Table 130

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - FREEDOM FROM NERVOUS SYMPTOMS

Source	SS	df	MS	F
Level	11.469	1	11.469	2.176
Treatment	4.784	1	4.784	.908
Interaction	14.367	1	14.367	2.726
Error	152.845	29	5.270	
Total	18.347	32		

Table 131

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - PERSONAL ADJUSTMENT

Source	SS	df	MS	F
Level	508.714	1	508.714	7.809*
Treatment	315.128	1	315.128	4.837
Interaction	.002	1	.002	.000
Error	1889.204	29	65.145	
Total	2713.048	32		

*Significant at the .01 level

Table 132

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION FOR CTP VARIABLE - SOCIAL STANDARDS

Source	SS	df	MS	F
Level	2.044	1	2.044	1.258
Treatment	.140	1	.140	.086
Interaction	1.773	1	1.773	1.092
Error	47.102	29	1.624	
Total	51.060	32		

Table 133

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION FOR CTP VARIABLE - SOCIAL SKILLS

Source	SS	df	MS	F
Level	3.716	1	3.716	1.106
Treatment	12.899	1	12.899	3.841
Interaction	11.450	1	11.450	3.409
Error	97.385	29	3.358	
Total	125.450	32		

Table 134

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION FOR CTP VARIABLE - FREEDOM FROM ANTI-SOCIAL TENDENCIES

Source	SS	df	MS	F
Level	1.028	1	1.028	.262
Treatment	4.592	1	4.592	1.173
Interaction	1.419	1	1.419	.363
Error	113.496	29	3.914	
Total	120.537	32		

Table 135

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION FOR CTP VARIABLE - FAMILY RELATIONS

Source	SS	df	MS	F
Level	5.238	1	5.238	1.710
Treatment	2.019	1	2.019	.659
Interaction	3.253	1	3.253	1.062
Error	88.817	29	3.063	
Total	99.327	32		

Table 136

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION FOR CTP VARIABLE - SCHOOL RELATIONS

Source	SS	df	MS	F
Level	168.651	1	168.651	.402
Treatment	208.990	1	208.990	.498
Interaction	271.902	1	271.902	.648
Error	1049.161	29	36.173	
Total	1114.116	32		

Table 137

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - COMMUNITY RELATIONS

Source	SS	df	MS	F
Level	1.007	1	1.007	.164
Treatment	3.118	1	3.118	.494
Interaction	1.988	1	1.988	.168
Error	176.721	29	6.088	
Total	182.835	32		

Table 138

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - SOCIAL ADJUSTMENT

Source	SS	df	MS	F
Level	24.353	1	24.353	.435
Treatment	72.122	1	72.122	1.289
Interaction	21.384	1	21.384	.382
Error	1509.712	29	55.915	
Total	162.757	32		

Table 139

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON CTP VARIABLE - TOTAL ADJUSTMENT

Source	SS	df	MS	F
Level	824.899	1	824.899	4.938
Treatment	625.564	1	625.564	3.745
Interaction	20.109	1	20.109	.120
Error	4844.610	29	4844.610	
Total	6315.183	32		

Table 140

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON SOCIOMETRIC VARIABLE - WORK WITH

Source	SS	df	MS	F
Level	1.567	1	1.567	1.247
Treatment	1.978	1	1.978	1.573
Interaction	1.945	1	1.945	1.547
Error	36.457	29	1.257	
Total	41.947	32		

Table 141

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON SOCIOMETRIC VARIABLE - SIT BY

Source	SS	df	MS	F
Level	.116	1	.116	.094
Treatment	.009	1	.009	.008
Interaction	.461	1	.461	.372
Error	35.885	29	1.237	
Total	36.472	32		

Table 142

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON SOCIOMETRIC VARIABLE - PLAY WITH

Source	SS	df	MS	F
Level	.016	1	.016	.011
Treatment	.052	1	.052	.036
Interaction	.169	1	.169	.119
Error	41.292	29	1.424	
Total	41.529	32		

Table 143

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON VARIABLE PARENT QUESTIONNAIRE

Source	SS	df	MS	F
Level	1.994	1	1.994	.179
Treatment	17.764	1	17.764	1.602
Interaction	1.044	1	1.044	.094
Error	321.589	29	11.089	
Total	342.392	32		

Table 144

ANALYSES OF COVARIANCE FOR FEMALE TREATMENT AND CONTROL GROUPS BY OCCUPATION ON VARIABLE GPA

Source	SS	df	MS	F
Level	369.599	1	369.599	4.445
Treatment	188.680	1	188.680	2.269
Interaction	80.709	1	80.709	.971
Error	2328.206	29	83.150	
Total	2967.196	32		

Table 145

t TESTS ON ADJUSTED MEANS FOR FEMALE OCCUPATION LEVEL AND CONTROL ON CTP VARIABLE - PERSONAL ADJUSTMENT

Comparison	Mean	Mean	df	t	Level
HO to LO (comb)	48.739	40.121	11	1.781	NS
HO to LO (control)	42.380	33.796	19	2.231	.05

HO= high occupational rating

LO= low occupational rating

(comb)= combined treatment groups because of small n.

Table 146

t TESTS ON ADJUSTED MEANS FOR FEMALE OCCUPATION LEVEL AND CONTROL ON CTP VARIABLE - SENSE OF PERSONAL FREEDOM

Comparison	Mean	Mean	df	t	Level
HO to LO (comb)	9.283	7.012	11	13.610	.001
HO to LO (control)	7.863	5.831	19	1.560	NS

Table 147

t TESTS ON ADJUSTED MEANS FOR PARENT TREATMENT AND CONTROL BY SEX ON CTP VARIABLE - SENSE OF PERSONAL WORTH

Comparison	Mean	Mean	df	t	Level
M to F (PT)	6.804	7.968	36	1.390	NS
M to F (control)	7.591	10.190	30	2.404	.02

M= Male

F= Female

PT= Parent Treatment

Table 148

t TESTS ON ADJUSTED MEANS FOR MALE TREATMENT AND CONTROL BY ABILITY ON VARIABLE GPA

Comparison	Mean	Mean	df	t	Level
HA to LA (CT)	50.803	38.027	21	4.208	.001
HA to LA (PT)	47.577	42.115	26	1.910	NS
HA to LA (control)	46.555	42.073	41	1.931	NS

HA= high ability

LA= low ability

CT= counseling treatment

PT= parent treatment

REFERENCES

Blocker, D.H. *Developmental Counseling*. New York: Ronald, 1966.

Broedel, J.; Ohlsen, M.; Proff, F.; & Southard, C. The effects of group counseling on gifted underachieving adolescents. *J. counsel. Psychol.*, 1960, *7*, 163-170.

Chance, J.E. Independence training and first graders' achievement. *J. consult. Psychol.*, 1961, *25*, 149-154.

Chansky, N.M. Perceptual training with elementary school underachievers. *J. sch. Psychol.*, 1963, *1*, 33-41.

Granzow, K.R. A comparative study of underachievers, normal achievers, and overachievers in reading. *Dis. Abstr.*, 1954, *14*, 631-632.

Harris, C.W. *Problems in measuring change*. Madison, Wisconsin: University of Wisconsin Press, 1962.

Karnes, M.B.; McCoy, G.; Zehrback, R.R.; Wollersheim, J.P.; & Clarizio, H.F. The efficacy of two organizational plans for underachieving intellectually gifted children. *except. Child.*, 1963, *29*, 438-446.

Kurtz, J.J. & Swenson, Esther. Factors related to overachievement and underachievement in school. *Sch. Rev.*, 1951, *59*, 472-480.

Norman, R.D.; Clark, B.P.; & Bessemer, D.W. Age, sex, I.Q., and achievement patterns in achieving and nonachieving gifted children. *except. Child.*, 1962, *29*, 116-123.

Ohlsen, M.M. *Guidance services in the modern school*. New York: Harcourt, Brace and World, 1964.

Raph, Jane; Goldberg, Miriam; & Passow, A.H. *Bright Underachievers*. New York: Teachers College Press. 1966.

Shaw, M.C. & McCuen, J.T. The onset of academic underachievement in bright children. *J. educ. Psychol.*, 1960, *51*, 103-108.

Teigland, J.J.; Winkler, R.C.; Munger, P.F.; & Kranzler, G.D. Some concomitants of underachievement at the elementary school level. *Personnel guid. J.*, 1966, *44*, 950-953.

Thorndike, R.L. The concepts of over- and underachievement. New York: Bureau of Publications, Teachers College, Columbia Unifersity, 1963.

Weiner, B.J. Statistical principles in experimental design. New York: McGraw-Hill, 1962.

Winkler, R.C.; Teigland, J.J.; Munger, P.F.; & Kranzler, G.D. The effects of selected counseling and remedial techniques on underachieving elementary school students. J. counsel. Psychol., 1965, 12, 384-387.

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Effectiveness of Counseling and Guidance Techniques for Elementary School Students Final Report

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RETRIEVAL TERMS
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IDENTIFIERS

ABSTRACT

This study investigated the effectiveness of Individual Counseling and a Parent Educational Program in modifying underachieving behavior and measured personality traits, peer relationships, and perceived family attitudes. The sample was comprised of fifth grade students, male and female. The treatment duration was for an academic year. The underachievers were identified by predicting their grade point average using a prediction equation. If a discrepancy was found between actual achievement and predicted level of achievement, the student was identified as an underachiever. The underachievers were grouped into two groups, individual counseling and parent treatment groups, on the basis of testing. These two groups were further subdivided by random sampling into a treatment group and control group. The change from pre- to post-testing on the variables of the study was analyzed by using the analysis of covariance. The .01 level of significance was set to indicate a significant change between and among the treatment and control groups. The overall finding of the study indicated that neither of the two treatment approaches resulted in any significantly measurable change. The few differences that were found were attributed to the chance factor. The overall conclusion was that the treatment conditions of individual counseling and parent education did not result in any significant improvement in achievement, measured personality traits, peer relations, and perceived parental attitudes.